

PEST MANAGEMENT ENHANCEMENT 2006 CONSERVATION SECURITY PROGRAM



REDUCE PESTICIDE MOVEMENT BY MANAGING RIPARIAN FOREST BUFFERS

WHAT:

Riparian forest buffers are strips of vegetation managed in shrubs and trees on the edge of cropland, pastureland, and hayland adjacent to sensitive areas.

WHEN:

Riparian forest buffers are managed by maintaining the area in trees and shrubs.

WHERE:

Riparian forest buffers are located adjacent to sensitive areas such as streams, lakes, ponds, sinks, wellheads, and wetlands. Riparian forest buffer widths on streams are measured from the top of bank.

HOW:

Manage riparian forest buffers by protecting vegetation from grazing and fire. See the attached Riparian Forest Buffer Jobsheet for establishment and management guidelines.

HOW MUCH:

All existing and planned trees and shrubs adjacent to sensitive areas are eligible for riparian forest buffer management. Riparian forest buffers must be at least 35 feet wide along the entire length of the buffer. CSP Enhancement payments are based on average widths in 10-foot increments exceeding the 35-foot minimum up to 65 feet wide. Existing trees and shrubs may contribute to the enhancement width. See below:

- 10 feet additional average width will be paid at \$250 per acre per year.
- 20 feet additional average width will be paid at \$250 per acre per year.
- 30 feet additional average width will be paid at \$250 per acre per year.

Riparian Forest Buffer



Guidelines

Location and Width

- A riparian buffer should extend from the top of the bank for a minimum of 35 to 65 feet. The minimum riparian buffer width should be approximately 30 percent of the floodplain width, but never less than 35 feet.
 - ◇ **Zone 1** is from the top of the bank extending 15 feet, measured horizontally. This is the area most susceptible to erosion.
 - ◇ **Zone 2** should be at least 20 feet wide measuring from the edge of Zone 1. The combined width of both zones 1 and 2 should be 35 to 65 feet.
 - ◇ **Zone 3** is the area adjacent to zone 2 and may be planted in a filter strip of grass or grass/legume mixture to provide additional wildlife habitat, reduce concentrated flow, and decrease erosion. The filter strip also protects seedlings from sedimentation. (Refer to Filter Strip Jobsheet for plant establishment.)

Establishment (Trees and Shrubs)

- Planting guides are available from the Tennessee Department of Agriculture, Division of Forestry.
- **Site Preparation** - Areas to be established with trees and/or shrubs should have competing vegetation deadened in a 3-foot diameter around each tree and shrub. Only chemicals approved for application near water bodies can be used.
- **Cuttings** - Cuttings should be 0.5 to 1.5 inches in diameter and 2 to 3 feet long. Branches should be removed from the cutting. Angled cuttings should be driven with a rubber-headed mallet into a pilot hole. Materials should be installed the same day they are prepared. Cuttings should be placed in water until planted. **Willow and silky dogwoods** are two species that have proven to have high survival rates in Tennessee.
- **Seedlings** - Seedlings should be kept in a moist, cool environment until they are planted. Tree seedlings should be heeled into the ground if trees cannot be planted within a week after delivery. At the time of planting, it is recommended that a branch of the seedlings be flagged or marked to help monitor growth and coordinate maintenance.
- **Spacing (feet by feet)**

	Trees	Shrubs
Zone 1	8 x 8	4 X 4
Zone 2	8 to 12 x 8 to 12	4 to 8 x 4 to 8
- **Tree Species** - The species planted should be native and provide multiple benefits for aesthetics, wildlife, and water quality. A mixed species planting is preferable to rows of single species.

Riparian Forest Buffer

Maintenance Items

- Mow or perform prescribed burning to control competitive vegetation.
- When using chemicals to control vegetation, read and follow label directions.
- Fences may be necessary to exclude livestock and vehicle traffic. Inspect fences periodically, especially after flooding events.
- No harvesting should be done in Zone 1. On streambanks, periodically cut and remove trees with 30 degrees or greater lean.

- Any harvesting of trees should be done without degrading the buffer zone.
- Zone 2 may be managed for selective timber harvest and other productive uses.

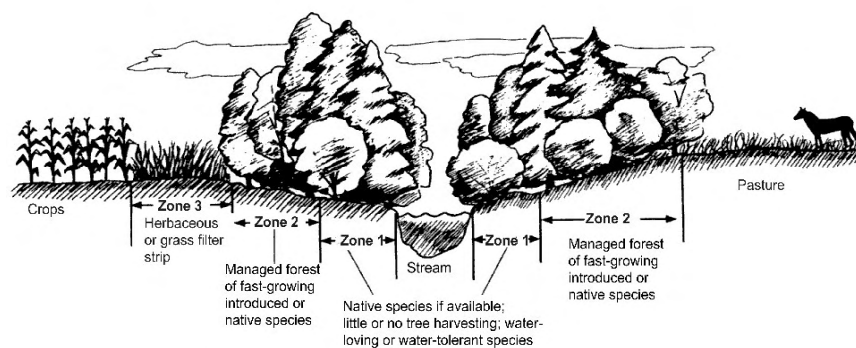
Complementary Practices:

Fence
Grade Stabilization Structure
Streambank and Shoreline Protection
Stream Crossing
Use Exclusion

The following table lists a few species that may be commonly found in specific regions of West, Middle and East Tennessee. The table notes if the species are suitable for Zone 1 or 2.

PLANT SPECIES	West TN	Middle TN	East TN		PLANT SPECIES	West TN	Middle TN	East TN
Bald Cypress*	1, 2				Red Maple*		2	1,2
Bankers Willow*	1	1	1		Silky Dogwood*	1,2	1	1
Black Walnut	2	2	2		Silver Maple*	1,2	1	
Black Willow*	1,2	1			Swamp Chestnut Oak*	1,2		
Cherrybark Oak	1,2	1,2			Swamp White Oak*	1,2	2	1,2
Cottonwood*	1,2				Sweetgum*	1,2	2	2
Elderberry*		1,2	1,2		Sycamore*	1,2	1,2	1,2
Green Ash*	1,2	1,2	1		Tulip Poplar		2	2
Nuttall Oak	1,2				Water Oak	1,2		
Pin Oak*	2	2	2		Willow Oak*	1,2		

*Medium to High flood tolerance



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